

THE ACADEMICIAN.

VOL. I.

NEW-YORK, SATURDAY, JUNE 5, 1819.

NO 20.

PUBLISHED SEMI-MONTHLY, BY ALBERT & JOHN W. PICKET, AT 3 DOLLARS PER ANN.

THE ACADEMICIAN.

NO. XXI.

Concluded from page 292.

Istius modi res dicere ornatè velle, puerile est; planè autem et perspicuè expedire docti et intelligentis viri.

CICERO.

To affect ornament on such a subject as this, is puerile; but to dispatch it with plainness and perspicuity, is the part of an intelligent and well informed man.

REVERTING to the developement of the system in the Juvenile Expositor, and what we have said in the preceding part of this essay relative to the accentuation, pronunciation the derivation of words, synonymizing, &c. let us make the following observations.

When we consider the customary ages of children who are learning the elements of speech, a conclusion naturally arises, that precepts should be inculcated by little and little; because a difficult task is not instantaneous, but the work of time. Their ideas want expansion; they are too contracted; the world to them is as yet in its non-age, and they must be taught observation before decision. Further, this part of life (if at all) is usually occupied in learning the relative properties of the analysis of speech, its position, concord and government; and the task seems admirably adapted to the capacity,* trifles and

* Quidam literis instituendos, qui minores septem annis essent, non putaverunt, quod illa prima ætas et intellectum disciplinarum capere et laborem pati non possit.

Quid melius alioqui facient, ex quo loqui poterunt? Faciant enim aliquid necesse est. Aut cur hoc, quantumcumque est, usque ad septem annos lucrum fastidiamus? Nam certe quamlibet parum sit quod contulerit ætas prior, majora tamen aliqua discet puer eo ipso anno, quo minora didicisset. Hoc per singulos annos prorogatum in summam proficit; et, quantum in infantia præsumptum est temporis, adolescentiæ acquiritur.

Non ergo perdamus primum statim tempus; atque eo minus, quod initia literarum solâ memoriâ constant; quæ non modo jam est in parvis, sed tum etiam tenacissima est.

QUINTILIAN.

"Some have thought that none should be instructed in letters who are under seven years of age, because that early period can neither comprehend learning, nor endure labour.

But what can they do better from the time at which they are able to walk? For something they must do. Or should we slight the gain, little as it is, which appears before the age of seven? For certainly, however, little that may be which the preceding age shall have contributed, yet the boy will be learning greater things in

minutiæ being objects of the attention, which to those of a riper stage become intolerable. Hence it appears that the process of nature is developed, which a wise man will ever pursue with that rigid foresight which characterises all his actions. Whether a thing be of foreign or domestic origin, a proper knowledge of it depends on a proper manner of having studied it; for there is no such thing as knowledge without application.

Because we are studying our native tongue, it does not preclude the necessity of studying it well. It is interesting in itself, as serving the communications of man and society, and therefore demands attention. It would be ridiculous, to see a man cast away or neglect his own produce, and purchase that of foreign growth for his own consumption.

The necessity of studying language properly, being acknowledged, we proceed to show what is meant by studying it well.

In studying language well, is meant that method by which we obtain the clearest and most perspicuous view of the subject. This consists in giving us a due exposition of things in the abstract, as they relate to things in the concrete. That letters rightly disposed make a word, or even a book, is what every child knows; we want the principle. Industry and perseverance are ingredients of the first demand, but they will not of themselves have the desired effect; we must have precept and example, with an instructor capable of explaining the difficulties of both.—Nothing is taken by instinct that appertains to art. Therefore, what is correctly digested into an art, must be artfully analysed, before we can have a just knowledge of its construction; and from these premises we consider further.

Since letters are the first elements of written speech, it seems necessary that we should know what a letter is, and that letters are divided into vowels and consonants; that vowels have a perfect sound of themselves, and that one at least is required to every syllable in the formation of words. In the next place, we are told that letters compose syllables, syllables compose words, and that words compose sentences; that to words belong accentuation, pronunciation and meaning; that accentuation ex-

that very year, in which he would otherwise have been learning less. This extended to several years, amounts to a sum; and whatever is anticipated in infancy, is an acquisition to the period of youth.

Let us not then throw away even the very first period; and the less so, as the elements of learning require memory alone, which is not only found in little boys, but is very tenacious in them."

ists in words of more than one syllable, or it degenerates into a vowel, diphthongal, or triphthongal sound, pointed out by the stress of voice in pronunciation; and that every word has a particular and specific meaning, which is necessary to be retained in memory, but the proper application of which meaning depends upon the judgment. All this is a work of moment, and requires exertion in its execution. Some may dub off a part with the epithet of *trifling*; but let such reflect that when every thing is to learn the learner is actually existing in "*the day of small things*;" and old Dr. Franklin proved to the satisfaction of every person, that *the way to wealth* is industriously to collect these trifles into a sum, and if in this manner temporal wealth is accumulated, why not mental after the same?

We have now arrived at the threshold, the business of improvement is begun, a little is already learned, and promising hopes are entertained, that the consummation will be no sarcasm on the beginning. The thing is taken at the right end, the leaf is turned, and there can be no necessity for consulting what has been previously past.

Our point with a little consideration, will be further established, if we reflect that the process of studying the languages is conducted after a similar manner. The higher schools admit of no other methods in inculcating a knowledge of Latin and Greek, because they are considered, as every language ought to be, a work of memory and judgment. Teachers consider them of too much importance to be left to the option of chance, and to be learned at random as sciolists in gunnery shoot at the mark. In fact, the conception is just, and our ingenuity on the second reflection, is called upon to form a reason for our conduct in not cultivating and impressing the knowledge of a thing by which we have been benefited ever since our infant tongues "*could lisp the name of father*."

Enough has been said on this point already, yet one more remark shall serve to throw it in a different light. Every man, woman, and child, can tell how they were taught to read, and in what manner. Were you ordered to read before you could spell? no: were you commanded to spell before you knew the alphabet? no. Then it is evident, that a proper process has been observed, and that the art of reading was accomplished on a progressive scale. It is thus, that other arts are learned—music, for instance; the gamut, to raise and fall the eight notes, must first be attained before plain tunes, and these again before those of a more complex nature. The time and mood, so puzzling to the beginner, are not of such insuperable construction, but that a patient attention will overcome them.

In the next place we shall observe, that as in the preceding process a proper course has been marked out for continuing the subject, a continuance must end, where every person wishes it, in definite knowledge. A plodding fellow obtains the name of phi-

losopher, but an occasional applicant can never be an adept.

An association of words forms a sentence; and as from their office they are peculiarly important, it is but just that they should be perfectly comprehended. A Greek or Latin sentence would be equally unintelligible as an English one not understood. It yet remains for philosophy to establish how far a commitment and retention of synonymies should be pursued. Some may more rigidly contend for the thing than necessity requires. Use and a spirit of inquiry will do much when the foundation is once laid; for words are a sort of capital to the literary trader, by which his credit is daily increasing, his stock augmenting, and by means of synonymes (words which are employed to define a meaning) his business made still more extensive. The acquisition of yesterday is become a new capital to-day, and that of to-day will be thrown into the stock of to-morrow. Thus continues the interest, like retailing merchandize, until an accomplishment of independence, and we are enabled to retire from the busy theatre of such an employment, and repose ourselves in the shades of affluence.

Respecting synonymous words, "*I could never find*," says a late celebrated writer, "*any two words in English precisely of the same meaning. There will always be some shade of difference in their application to composition, and cannot be invariably synonymous.*"* But this, perhaps, is a more advanced study, and appertains to a critical knowledge of speech; we shall, therefore, charge it to the account of criticism, and pursue the thread of our subject without an episode.

To obtain an elementary knowledge of a thing, let us consult the constituent principle; we must be taught *how* to learn, and not *what* to learn. *Sentiment*, for one is a principle that, like a mechanical power, urges forward the body of the other with all its redundancies. Too long has a contrary custom prevailed, and foresight, like a porter at the shafts of a wheel-barrow, been compelled to subscribe to the direction of custom. But the day of experiment is establishing facts, and the hoodwinked Gallileo may assert the doctrine of the Antipodes, in despite of the Pope and the inquisition.

By such methods as have been advanced, a proper knowledge of grammar, is inculcated. There cannot be a too definite discrimination observed in the classes, and a too particular and applicable regimen established. The art is studied, because it gives us a knowledge of connection with its laws, we learn because it is pleasing to know; let us not be content with superficials, when a thorough acquaintance is no superfluity, or deceive ourselves with the idle position, that it is easier to learn a little than much.

* G. Crabbe has written a most excellent system on the synonymes of the English language.

Is it not strange that man, formed to be the companion of himself, to elevate his thoughts to heaven, to understand the nature of systems and the laws of nature, should content himself with sciolism and not improve the advantage of being reasonable? He who can see cause through effect, draw an inference from things as they are, and establish a truth by deduction, employs his hours of leisure too often in trifling, without reflecting on things that are useful, or busying himself in the cultivation of arts for the instruction of others.—Having never experienced a fruition of knowledge, we wish not for the enjoyment. Having never tasted the feast of reason to perfection, we have not even the inclination to investigate and know what it is.

Such is the daring composition of the human mind, that it can penetrate the secrets of nature, analyse the universe and decompose worlds. Yet the science of connection, so congenial with the wisdom of its construction, is abandoned to the government of circumstance and accident. A powerful charm of apathy or indecision clouds our brightest moments, the invincible influence of some favourite trifle amuses the intellect, and humbles our important pretensions to the dust.

Some pleas'd illusion half consumes our lives,

In plays, amusements, baubles, books, and wives.

Such is our sluggish indifference to the improvement of the mind, that we observe not the present nor gather from the past; and on reflection, we are sometimes disposed to doubt whether heaven bestowed on us an intellect in mercy or in wrath.—Nothing can be offered in extenuation of blundering from *design*. Our conduct is of a consequential nature, and operates against our interest by a law of necessity: it is leaving the boat with all its valuable contents to the mercy of wind and weather, when it may as well be in port. Let us, therefore, by one powerful exertion cast off the shackles of ignorance and determine to be wise. Let energy rise in all her native majesty, and declare in our favour by abetting the glorious struggle of emancipation from this worst of despotism.

Speech, the ornament of humanity, was intended for our consolation and assistance. It was intended as a medium for making known our wants, and a channel for extending the communications of society. "*We think in words*," said a celebrated follower of the peripatetic sect;* therefore let us use them with elegance, precision and despatch.† We

* Aristotle taught his followers while walking, and hence his sect was called peripatetics.

† And yet many spend their whole time in learning mere words as arranged in the columns of a spelling book. We need not say in what manner it is done; because every one that has been under an illiterate teacher, or who has arrived to the years of maturity and sees the absurdity, well knows what we mean. It is like one's wasting his whole life about the shells and husks of learn-

listen with attention to all who use language with propriety, whether it be at the tea-table or in the pulpit; and nothing lessens a public speaker in the estimation of his hearers, sooner than an incorrect and inelegant mode of delivery.

With these observations we conclude our present essay. We have endeavoured to throw out such hints concerning our mode of procedure, and the system we have developed in the American school class-books, as we thought might be useful to those who are engaged in instructing youth. The system is not new; it is known to all those who are acquainted with the operations of the human mind, and the best ancient and modern writers on language. We shall not, therefore, attempt to dignify the system with a pompous name, but submit it to the decision of the judicious.

ON THE CULTIVATION OF MATHEMATICS, DURING THE EIGHTEENTH CENTURY, AND THEIR INFLUENCE UPON THE HUMAN MIND DURING THAT PERIOD.

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It may then be inquired, whether the precedence that has been, for some years yielded, to the sciences over literature in education, have been so baneful to the latter, as some writers have been pleased to repeat with so much more frequency than pertinence. The question, by what branch of our knowledge is the education of children to be begun, is yet, from the varieties of mental constitution, entirely unresolved; whether the study of languages is the only proper occupation of early years; whether it might not be possible to substitute for it advantageously, that of natural history, or even of practical geometry and of calculation in the form in which it has been rendered accessible to the senses in combination with measures of magnitude by M. Pestalozzi. Can it be denied, that many whose progress has been accelerated by seizing their particular taste, have returned to literature, whenever they have felt the want of it, and have filled with great facility, the void in their early education, while they would have remained strangers to literature as well as to every science, if they had not at first fallen upon that to the cultivation of which they seemed to have been specially summoned by nature. Examples would not be wanting, if it were necessary to assert upon the authority of exam-

ing, without ever tasting the sweetness of the kernel of the fruit; *difficiles habentes nugas, making much ado about trifles*. The knowledge of the meaning of words, is absolutely necessary to the understanding of authors, or one another in conversation. But they never can be leagued by jabbering them off abstractly, and by heart.

ple, the progress which may be made in the art of composition, by the powers of a developed mind. It is not without reason that D'Alembert has said "the art of writing is no other than that of thinking, and the gift of eloquence is the faculty of grafting an exact logic upon an ardent soul."

Put aside, if you please, the poets and the orators although in their, as in all other pursuits, great men owe more to themselves than to the minute circumstances of their education.—Sciences must exist in different degrees of certainty, but, here are the perfect models of taste for imitation, and nature is always speaking to imaginations susceptible of warming, while they behold her, and to souls capable of seizing the delicate shades and the just expression of sentiment.

But were it true that great writers have been rendered more rare by the cultivation of the sciences, has it not multiplied men capable of expressing just ideas with clearness and precision, and of communicating with ease to others, whatever they may have learned, whatever they can have imagined? And in the same manner as the prosperity of a nation does not result from a few overgrown estates made scandalous by the indigence of the body of the people, but from the general ease of the citizens; so the progress of literature, especially when considered in relation to the good it may do in society, ought not to be estimated from the perfection attained by a few privileged beings whom their cotemporaries could not appreciate, but from the intelligence and information spread among the mass of men.

On such a valuation, the superiority of the eighteenth over the preceding centuries, is undeniable.

But why excite between literature and the sciences, a struggle for pre-eminence which would be rendered endless by the self-love of their respective cultivators? To discover truth, and to transmit it to others, is the common end of their various labours. Decked with the graces of rhyme and of harmony, it seizes on the heart and on the memory in the strains of poetry; inspired by the animating warmth of a lofty and rapid elocution, it should reign without a rival in the productions of the art of oratory, which becomes pernicious when it employs its strength for the triumph of error. The man of science should be ceaselessly devoted to researches which may prove useful, either by furnishing new results applicable to the arts of society, or by unveiling to our eyes the true laws of nature, and enlightening our minds with respect to what can and what cannot exist. Thus it is, that prejudices are dispelled which yield up one part of their empire, only that they may acquire another; for motion so completely constitutes the essence of the human mind, that it begins to go back as soon as it ceases to go forward. The precedence of one science or of one art above others at any period, must be determined by the servi-

ces it affords, and especially, by the degree of perfection to which it attains, not by the declamations of the men who may profess it. The field from which the most abundant harvest may be procured is the most cultivated; and the greatest number of minds will be captivated by that particular department of knowledge, which, from the rapidity of its progress, gives those who consecrate their vigils to it, reason to hope for the most multiplied and ready and sure success.

Literature was the earliest in its sway; but mankind may well despair of ever equalling the perfection of the models left us by the two preceding centuries, and must be contented with following them in the less sure but easier path of imitation. The mathematical sciences succeeded literature; and now, the physical sciences, and especially chymistry, seem to possess the advantage in the number and importance of their discoveries.

These alterations of renown are yet more the work of things than of men; and nature seems to have followed in the march of the mind of ages, the same order which it observes in that of individuals. At first imagination rules; but, soon perceiving, that the spells of this enchantress, have often hidden under flowers, the precipice into which he has fallen, man throws himself into the arms of reason; he calculates, he weighs every step he is to take; but when he discovers in the end, that circumstances beyond his control, even the blind charms of life, mock his firmest resolutions and defeat his best concerted projects, he calls imagination anew to his aid; if imagination has deserted him, he summons his memory to the production of sweet sensations, for the heart demands these sensations even more clamorously than the mind calls for intelligence.

Perhaps, then, the cultivation of literature may be resumed, whenever that of the sciences becomes barren of success and enjoyment; but be that as it may, their claims to the consideration and gratitude of society are so substantial, that it may be allowed to apply to them all those eloquent reflections upon the utility of physical astronomy, with which M. La Place so happily closes his exposition of the system of the world.

"Let us guard with care, (he remarks) let us enlarge the treasury of these lofty acquirements, the delights of thinking beings. They have rendered important services to agriculture, to navigation, to geography; but their greatest benefit is, that they have dissipated the fears occasioned by the celestial phenomena, and have destroyed those errors which sprang from the ignorance of our true relations to nature, errors so much the more baneful, because the order of society depends upon these relations. Its unchangeable laws are TRUTH,—JUSTICE. Far from us be that dangerous maxim, that it is sometimes politic to abandon them, and to deceive or to subjugate man in order to assure their happiness."

it has been proved, in every age, by fatal experience, that these sacred laws are never to be disregarded with impunity."

OUTLINES OF PHILOSOPHIC EDUCATION.

On the Science of the human mind.

THE study of mind, as well as that of matter, has its plain and simple elements; placed within the reach of those who are only beginning to acquire the rudiments of *knowledge*, and founded upon that acquaintance, which every one possesses, even in early life, with the operations of his own *faculties* in the *perception* and discrimination of the objects which surround him.

In this science, too, as in every other which proceeds upon regular principles, the attention of the student is confined at first to simple views, and particular facts, and it is only upon these, when properly ascertained and classified, that he afterwards advances, by successive and connected steps, to general conclusions, or general laws, with regard to the several qualities and operations of *MIND*.

To the elements of this science, therefore, we have recourse, on the present occasion, as the *mother science*, so to call it, from which all others derive at once their origin and nourishment. Thus logic, metaphysics, ethics, jurisprudence, law, and eloquence, have their common origin in *mind*, whilst, in all the branches of natural philosophy, the powers of intellect are the instruments, by which knowledge must be acquired. However much these sciences may diverge from one another, in their more advanced stages, and in the practical application to which they lead, there can be no doubt that they are closely allied in their origin; that they have common principles and a common language, and, consequently, that an intimate acquaintance with the phenomena of *mind* must form a suitable introduction to the study of every branch of human knowledge.

The mind of man, then, may be described as *that*, which in human beings, thinks, and feels, and wills, and is conscious of its *actions or operations*. But, as it is necessary that the student should know his subject, not only as a whole but as consisting of parts capable of analysis, so far at least as to answer the purpose of a more minute examination, it becomes requisite that the several faculties which manifest themselves in their different states of *thought* and *feeling*, should be placed before him, and separately explained, agreeably to some consistent theory. The powers or faculties of the human *mind*, therefore, may, perhaps, be divided, and arranged, under the following heads; which division, although including more particulars than may be quite compatible with the simplicity aimed at by some modern authors, seems to us, upon the whole, better calcula-

ted than a more restricted analysis, to effect the object which we have in view.

1st. The powers of acquiring and preserving knowledge.

2d. The powers of sensation.

3d. The powers of volition.

4th. The powers of communication.

It is to the first of these divisions, that we particularly wish to direct the attention of the reader—to the powers of perception, reflection, memory, association, imagination—to the processes of abstraction, generalization, judging, and reasoning. These powers are classed together as having for their common object the *acquisition of knowledge*; and they are named according to the particular office which each performs, in the complicated mental process by which that acquisition is made. Thus perception is that particular *energy* or *modification of mind*, by which notions are acquired; memory is that by which they are retained; and judgment is that by which they are compared and discriminated: and, without this division and nomenclature, as applied to the faculties of the human *being*, we see not how the study of mind could possibly be carried on, or upon what ground it could be ranked amongst the sciences. The analysis, accordingly, which is instituted in this department of our strictures, respects the several modifications of *mental power* mentioned above—their operations, their offices and objects—their correction, and intimate dependence upon one another.

In conducting this process, it ought not to be regarded as a matter of indifference with what part, or quality of the subject, the analysis begins. There is a certain order established by nature which will prove the best guide to those in pursuit of this knowledge, in following out his investigations; and to which indeed the mind is inured by its earliest habits of inquiry, whether in the department of art or physical science. In examining a tree, for example, the *mind* naturally passes from the trunk to the branches, the leaves, the flowers and fruit; and, in the analysis of a watch, or steam engine, the process commences with the source of *motion*, advances through a series of connected powers, till it arrives at the *result* or ultimate effect. Similar connexions or dependencies may be traced among the faculties of the human *mind*; and, in this case, as in all others, the student is most likely to attain success by a faithful adherence to those simple rules, which are dictated by the natural order and connexion of the several parts of his subject.

The particular modification of *mental power* which is the subject of the analysis now to be entered upon, is called *PERCEPTION*—that faculty, whose office it is to open the first communication between *mind* and *matter*. In beginning the analysis of each mental faculty, we have found it useful to present it to the minds of youth, by a general description of

its objects and operations; and, afterwards, to direct their attention, successively, to the several modes in which it puts forth its powers, in different cases and circumstances: and, in particular, to conduct the explanation, in such a manner, as to appeal from the description of the faculty, thus given, to the consciousness of our pupils; and to refer them, from the theoretical view of its operations, to the actual feelings or notions excited in their own minds.

According to this view "perception is that power or faculty of the human mind, by the operation of which we receive notions, ideas, sensations, from the qualities of external objects, by the same means of certain impressions, or effects, upon the organs of sense, when the attention of the mind accompanies the direction of these organs of the particular object before them."

We have here called perception a mental power, or faculty. It is impossible to proceed one step in the analysis, without leading the student to form a notion of power,—or rather, putting him in the way of acquiring the only notion of it which he can ever expect to attain. The first notion of power, it is obvious, is derived from observing the changes which are made, or the effects which are produced, by one external object upon another, as well as by these objects upon the mind through the medium of the senses. Thus, the child long perceives these effects, without acquiring any notion of power distinct from the object itself, which operates the particular change which it perceives; and it is not until the mind has become a little more matured, and has been furnished with experience, that the young observer learns to draw inferences, and to form general conclusions. For those who are farther advanced, there is little difficulty in adapting such illustrations as will enable the inquiring mind to perceive the connexion, or relation which subsists between cause and effect. Suppose to be placed before them, a needle at rest upon a table, and a magnet lying within a certain distance of it; motion instantly commences in the needle; and it rushes to the magnet, in opposition to the laws of gravity; here a change is perceived; an effect is produced; the two objects are conjoined. The needle is again placed at rest upon the table—the magnet is removed, and a piece of common stone is substituted—the needle now remains at rest. A question then naturally occurs to the student—what is it in the magnet which produces the motion of the needle? It must be something which does not meet the senses; it must be something which is not perceived; for it is neither in the weight, nor in the shape, nor in the colour of the substance that this singular energy resides. To that unperceived property in the magnet—to that unknown something—the term power is applied; and, when we speak of it, in relation to the effect, we call it the cause of the motion which appeared in the needle. By a similar process, we arrive at a similar

conclusion with respect to the changes of motion and direction, in the several members of our body, arising from an act of volition. We are conscious of an exercise of that faculty, and we observe at the same instant, that a change, connected with the body, has taken place. We are likewise conscious of certain acts of volition directing the motions of the mind; in all which cases, the act of volition and corresponding change are conjoined so closely, that they mutually force themselves upon our observation, and remain associated ever after, in the particular relation of cause and effect. We observe the change indeed—but we observe nothing more. We see a fact, in particular circumstances, resulting as a consequent from an antecedent; but of the cause considered metaphysically, we can form no notion whatever. "*Vis est notissima—causa laet.*"

Nor is it at all singular, that, while we are able to form clear and distinct notions of an effect, we should find it impossible to penetrate into the nature and mode of operation of the cause, from which that effect proceeds. We have a vivid perception, for instance, of the effects which spring from the union of mind and body, in the human constitution; and yet we cannot form the most distant conception of, the principle upon which that union is founded. Indeed, our purest and correctest notions of power are derived from mind. A billiard ball, for example, is at rest upon a table:—a man is made to come in contact with that ball which is instantly put in motion; and, in this case, although it is the hand which moves the man, the source of motion is in the mind, which, by an act of volition, stretches forth the bodily organ. By attending to these, and, similar examples, the student will be assisted in forming the abstract notions of power.

The terms power and faculty, as applied to mind, it may be observed, have nearly the same radical meaning. The former, however, is of a more extensive import than the latter, and may be used in relation to material as well as mental objects. Thus, we say of a stone that it has the power, not the faculty of gravitation; whilst, on the contrary, in reference to the understanding and volition of the human mind, the term faculty has a much more suitable application than the term power. As a proper use of words is of the utmost consequence for preserving our notions clear and distinct, it may be farther observed, with regard to the terms now under consideration, that there are in the soul of man certain energies or active principles, to which neither the one nor the other will properly apply; and, accordingly, that, though we speak of the faculty or power of memory, judgment, or of reason, we do not employ such expressions as the faculty of desire, or the power of hatred.

It is said above, that, by the faculty of perception, the mind acquires or receives sensations, ideas, notions, &c. In going over with the student the several

parts of this general description, it naturally occurs to remark, that the term *acquire* merely denotes a certain operation by which the mind becomes possessed of something which it had not before; and that this and other analogical expressions, are used in the explanation of mental phenomena, only from the imperfection of language, and from the difficulty of substituting, in their place, any *forms* of speech which would prove more definite and intelligible.

The knowledge derived from perception of the material world around us, is expressed by the several terms of *ideas*, of *notions*, of *thoughts*, representative of certain objects with their qualities and concomitants. The term *idea*, coming from the greek verb *idein*, properly signifies a thought representative of such objects as have been perceived by the sense of sight; and it is solely owing to the poverty of language, that it is transferred to the first degrees of *knowledge* received by means of all the other senses; and, farther still, to those primary notions, or *elements* of abstract thought, which compose trains of argument and chains of reasoning, in the mind of the philosopher or the statesman.

Of the qualities of external objects, made known by perception, some are secondary, and others are primary. The latter comprehends *solidity* and *extension*,—properties which are essential to the existence of *matter* and inseparable from it: under the former are classed the more numerous attributes of *colour*, *smell*, *taste*, *sound*, *roughness*, *smoothness*, *heat* and *cold*. Were it not, that every thing which tends, even in the smallest degree to clearness of conception, and to a proper use of language, is important in the commencement of a philosophic education, it would not, perhaps, be deserving of remark, that, although we may apply the words *attribute*, *quality*, and *property*, almost indiscriminately to every species or class of objects, yet the first of these terms is more commonly used, when speaking of dignified objects, and persons. Thus, in reference to the *Supreme Being*, we employ the term *attributes*, and not *qualities*, or *properties*.

In the same simple mode of instruction, the attention of the student is directed, when on the subject of perception, to the important distinction established by philosophers, between the *qualities* and the *substances* of external objects. A stone, to take a very familiar example, is hard, and heavy, and rough, and cold; and these are some of the *qualities* of the stone; but the inquisitive youth will naturally ask, whether there be any thing in the stone, besides its qualities, incapable of change, and essential to its subsistence, as a portion of matter? The answer given to such inquiries will guide his mind in forming the abstract notion of *substance*. He will be told that there is, in the stone, something besides the *sensible* properties, and altogether different from them—the basis or *substratum* upon which

those properties rest—the principle of union by which these properties are combined and held together, and which, unlike them, can suffer neither increase nor diminution—being the characteristic arrangement of its *essence*, so to speak, which, forms the ground of distinction between a piece of stone, of *metal*, and of wood. This principle of union, or substance, is not, itself, an object of perception; on the contrary, we *infer* its existence, by an act of *reason*, from the qualities which inhere in it, but we remain entirely ignorant of its nature, when considered apart.

That the presence of an external object is indispensable, both to the *existence* of *sensation*, and to the conception of the mind, in forming the elements of *thought*, is a point clearly ascertained; but beyond this we cannot advance; an impenetrable veil is drawn over the wonders that follow, which, in our present state of being, we shall never be able to remove. There is no ground, however, to be surprised that we should encounter such an obstacle in our search after *causes*, when approaching the farthest boundaries which divide *matter* from *mind*; it is only requisite, in communicating *elementary* instruction to youth, to draw as exact a line as possible between the known and unknown; between what is certain and what is only probable.

In conducting this analysis of perception, nothing should be omitted that may tend, in any degree, to awaken curiosity, to excite interest, and to confirm habits of attention and inquiry, in the minds of youth. On due reflection, we shall discover, that the most valuable part of education is begun at an earlier date than we are ready to imagine; and that, whilst, according to our hasty conclusions, children are acquiring nothing, they are, in fact, busily employed in the acquisition of those important *habits*, on which all future *instruction* is founded, and which could not be so successfully formed at any other period.

Such an analysis of the powers of the *mind*, comprehending the appropriate operations of the intellectual powers in their simple or combined processes—the *generation* and *formation* of *ideas*—the manner of expressing them—the modes of *combination* and *deduction*, is the only proper foundation of *rules for conducting the mind in the search of knowledge, or of communicating it clearly and distinctly to others*.

We conclude this head with observing, that such exercises of mental powers as this mode of inculcation seems to encourage and require—while they tend to instruct, and to increase our *knowledge*, leave their traces behind, in strengthening and confirming the *habits* which bear on the powers of acquiring and communicating knowledge. They serve this purpose much more effectually than *rules* or *precepts* directly prescribed for the improvement of them.

For the Academician.

PESTALOZZI,

NO. V.

It is a very remarkable fact, that the system developed by Pestalozzi, is in its principles and its method as close and particular in its resemblance, as any two objects can be, of the earliest modes and forms of education of which history gives any account. In the school of Pythagoras, mathematics preceded every other study, and the knowledge of things was the preparatory exercise to the knowledge of words. Thus the fact, that all sensible objects are defined by an outline, which we express by the words shape, form, or figure, distinguishes every object from every other: the proportions of magnitudes, or forms as to length or elevation or bulk, are indefinite and unascertainable, without the use of number to express degrees of quantity, and a standard to which numbers are to be applied in the expression of different qualities. In the common modes of education, the knowledge of these facts is confined to general, not to exact expressions; the height of one object is referred not to a common standard of quantity, but by comparison to some other objects of which the resemblance and not the exact quantity is understood.

If then, all our ideas of sensible objects which have relation to forms and magnitudes are loose and general,—mere guess-work; it must be very obvious, that the studies which are conducted, without first acquiring accurate ideas of the quantity of magnitude or the standard of measure, must be embarrassed and equivocal; because, it will frequently happen that the defects of *guess-work* will be detected, when any incident requires a reference to exact measure. In the school of Pythagoras, the mathematical class preceded that of natural philosophy, and the reason is obvious. Plato in a subsequent age, excluded from his lectures on philosophy, those who were ignorant of geometry; and there is a memorable saying of the philosopher Xenocrates to a person who being ignorant of geometry and arithmetic appeared at his lecture; retire, said the philosopher, you have not found the key of philosophy;—or the cup of philosophy has no handle for you.

Whether Pestalozzi caught the ancient ideas from the study of those great men's principles, or invented them anew, is not of so much moment as the truths by which his principles are governed.

In what I have already said on the method of Pestalozzi, this truth has been demonstrated; for though the sketches I have made are brief, yet they are at least sufficient to exemplify the coincidence of ancient wisdom with modern discovery; and the application of the same reasoning, to the interesting purpose of intellectual cultivation.

Thus, it has been shown, that the properties of numbers and the properties of lines, have no previous exercise, but that which Pestalozzi considers as the duty of the mother to inculcate, that is, the names of the limbs and members of the human person which he insists should be precisely and consistently taught to the infant in its first articulations of speech; and for which purpose he has prepared a book, which he calls "*The mothers' book*."

Of this book, I shall here give you as ample an account as the limits of your Academician will admit, in a single number. In his preface he points out the importance to human society of the correct education of those who are to be mothers, upon whom so much depends in the formation of the first ideas of infancy, and how important it is that every idea should be accurately communicated; which is impossible, he says, if the mother has been herself erroneously or imperfectly instructed. The mothers' book, therefore, is intended to supply accurate ideas consistent with the rational intelligence of mature age, and to supersede the vulgar and erroneous names and ideas which grow into use, where education is neglected or associations vicious.

He considers the first object which attracts infant attention, is, the infant itself, and that a knowledge of self is as necessary to the first instruction of the infant as it is to the prudence of the sage. He divides the book into ten exercises. In the first, the mother is provided with the names of the exterior parts of the body, and the infant is to be taught to observe each part named, and the name of the particular part.

The second lesson teaches to show the position, the name, and the relation of each part to the rest of the body.

The third lesson directs the attention to the correspondence of the several parts of the body with each other.

The fourth lesson in order to make the knowledge more impressive and discriminate, teaches to know those parts of the body which are single, such as the nose and mouth; those that are double, as the eyes, ears, arms, legs, &c.

The fifth lesson teaches the peculiar properties of every part of the human person.

The sixth lesson teaches to collect in one class, such parts of the body as have corresponding parts and relations in another part of the body, whose individual properties have been already known, and to name them in common.

In the seventh lesson the mother teaches the child to observe and to express the use to which it can apply the several parts, and on what occasions the exertions of that use are made.

The eighth lesson consists of precautionary instruction in relation to an improper use of the members of the body.

The ninth lesson is calculated to acquaint the

child with the uses and benefits to be derived from the proper use of the limbs, eyes, ears, tongue, teeth, hands, &c.

The tenth is an exercise on all the previous lessons in which their accuracy and use are tested: and the whole are accompanied by ingenious and interesting instructions, as to the mode of conducting this first care of the mother so as to be pleasing to herself and without being irksome to the infant.

The enumeration of the names of the parts of the human person, according to these lessons, may be conceived to be too extended for an essay; I shall however select a part, to show the operation of instruction. The child is required to do and say, as the mother does. She points generally at the whole person and says.—

This is my body. (which the child repeats.)

This is my head. (the child repeats.)

This is my face. (the same.)

There are two sides to my head.—(repeats.)

This is the right side of my head.

This is the left side of my head.

This is the back part of my head.

This is the top or crown of my head.

This is my forehead.

These are my two eyes.

This is my right eye.

This is my left eye, &c. &c.

This proceeds distinctly noticing every articulation or peculiarity of the body and limbs; and closes with the nails of the fingers and toes and a description of the skin.

The second lesson commences in this mode: the body of the human person is understood to comprehend the whole of the parts between the crown of the head and the soles of the feet, and to the points of the fingers.

The head or upper part of the person, stands upon the neck, between the tops of the two shoulders.

The crown of the head is the uppermost part of the head.

The face is on what is called the forepart of the head.

The eyes are beneath the forehead, as the forehead is the upper part of the face, &c. &c.

The third lesson proceeds thus—

The head is a part of the body.

The face is a part of the head.

The forehead is a part of the face.—and so it proceeds to show the relations of the several parts.

The fourth lesson asks the question—what parts of the human body are they which are single?—the answers particularize.

The body is but one—the body has but one head, one neck, one trunk.

The head has one upper part or crown—one hind part—one forehead—one face.

The face one forehead—one nose—one mouth, one chin, &c.

What parts of the human body exist double?

The head has two eyes—two sides,—two temples, two ears,—two ear muscles—two nostrils, &c. &c.

What parts of the human body are quadrupel?

My two eyes have four eyelids—two upper and two lower.

My two jaw-bones have four eye-teeth, &c. &c.

What parts of the human body are sixfold?

My two arms have six joints—two upper—two middle—and two lower.

My two legs have six joints, &c.

What parts of the human body are eightfold?

My two jaw-bones have eight cutting or fore teeth.

Each of my two jaw-bones have four cutting teeth.

What parts of the human body are tenfold?

My two hands have ten fingers of which two are also called thumbs.

Each of my hands has five fingers, or four fingers and one thumb.

The two first fingers next the thumb on each hand, are called the fore or first fingers.

The two fingers next to the fore-fingers are called the middle fingers; the two fingers next to that called the middle finger are called the ring fingers, and the two next on each hand are called the little fingers.

My two feet have ten toes, &c.

What part of the human frame is twenty seven fold?

My trunk has twenty-four ribs, there being 12 ribs on each side.

What part of the human frame has twenty-eight parts?

My ten fingers of my two hands have twenty-eight joints, &c.

The fifth describes properties in each number: thus, the head is nearly circular, and moveable, partly covered with hair, and partly without.

The seventh lesson proceeds thus—the head can be shaken—you can nod with your head—a load has been carried on the head.

The farmer shakes his head, when the snow falls on his long hair.

The mother shakes her head, when she thinks her child is about to do something improper—or, when he has already done what is wrong.

The mother nods with her head, when she wishes her child to be silent—and she nods sometimes when she approves or means yes—and she shakes her head, when she means no or disapproves.

I find it difficult to abstract them: and the concluding parts of the lessons, like the universal result of a just analysis, by gradually unravelling the parts, display a most beautiful and useful result; as the operations of the senses in every mode, is formed into a separate class, and the whole are made to unite. I shall close this number with a short sentence from the preface to the mothers' book.

I know that these lessons are but forms, and that

they only repeat in form what learned men after great labour, sometimes, but not always, accurately know. Thousands may read them and not see their use, and they will be probably judged as the potter judged the mason, who said his ware was not worth any thing, because it was not made to be broken; for he must soon have no more work, when his wares were so durable. But there will be some who will understand them, and they may be useful to those who wish intelligence to the whole human race.

PHILOLOGICAL DEPARTMENT.

GRAMMAR. Continued from page 270.

ADVERBS are words expressly formed for the purpose of subjoining an idea to that which is contained in an adjective or a verb. They are all capable of being annexed to verbs, and some of them to no other part of speech. From this circumstance the whole class has derived its designation. They never express an idea in so close subjunction as a noun governed by a verb in the accusative; they rather resemble nouns which are governed in the ablative, or phrases consisting of a noun with a governing preposition. They sometimes are employed to qualify the character of an idea expressed by an adjective or a verb. At other times they superadd some circumstance of relationship to objects which are capable of being separately conceived.

We cannot concur with those recent grammarians, who consider as instances of corruption the formation of adverbs by means of alterations made in the forms of words belonging to different parts of speech. They are words skilfully devised for fulfilling a definite object. They do not, as has been supposed, always arise from abbreviation. Although they are capable of being expressed by a plurality of words, this property is common to them with all parts of speech. Some of them are evidently abbreviations, while others have marks of being used as single words previously to any phrase into which they can be resolved. We have not even any demonstrative evidence that all of them are derivatives, and that none are original words.

Adverbs are divided into different species. Some express intensity, remission, or other modifications of attributes expressed by adjectives and verbs. Such are the adverbs "very" and "much;" as "very good" "much better," "much obliged;" also their comparative and superlative forms, as "more" and "most." The words "slightly," "little" "less," and "least," are of a similar nature. Some have considered the comparative and superlative degrees of nouns as condensed combinations of adjectives in their positive state with the adverbs

"more" and "most," because they can be resolved into phrases thus constructed. "Richer" and "richest," are "more rich" and "most rich." But these adverbs may in their turn be resolved into other phrases containing adjectives. "More" is "in a greater degree," and "most" "in the greatest degree;" and, from the first consonant being common to them with the positive adjectives *magnus*, *multus*, "many," and "much," and their determinations being characterised by the consonants *r* and *st*, it appears evident that "more" and "most" are derivatives. The Latin word *maximè* is evidently derived from *maximus*, in the same manner as a great variety of adverbs is derived from adjectives.

Adverbs expressing modifications of qualities are generally derived from adjectives. Such are adverbs in *-è* and *-iter* in Latin, as *longè ingenuè, breviter, feliciter*. In English they are formed by the addition of the termination "ly" as in "shortly," "considerably," "wonderfully." This termination seems, as Mr. Took remarks, to owe its origin to the word "like," of which it is an alteration, or, as he terms it, a corruption. It is sometimes used as an adjective termination in composition with a substantive, as in "princely," "kingly," which mean "prince-like" and "king-like." The adoption of it for distinguishing the adverb is entirely conventional, and the most profound investigation of its meaning will not lead us to a satisfactory conclusion on the nature of this part of speech. Yet the use made of this termination, and the nature of the adverb, are sufficiently apparent. They imply a notification that the idea expressed by the compound word is to be annexed in syntax, not to a substantive noun, but to an adjective or a verb. They are also capable of being attached to other adverbs; as "very nobly," "surprisingly well," "too uniformly."

The adverbs just mentioned are called *adverbs of manner*. Some of them merely express a general reference, and have the same relation to the words called demonstrative pronouns which others have to different adjectives. Such are the adverbs "thus," "so," and "as." In Lancashire, instead of "thus" and "so," it is common to say "i' this'n," and "i' that'n."

There are numeral adverbs as well as adjectives. Such are "once," "twice," and "thrice." These belong to the cardinal numbers, as expressing repetition. There are also adverbs which signify a mere reference to repetition, such as "first," "secondly," and "thirdly," and belong to the ordinal.

There are adverbs of local situation, as "here," "there;" and of local aspect, as "hence," "thence," "hither," "thither," "upward," "forward."

Adverbs of time, as "now," "formerly," "soon," "afterwards," "immediately."

It is unnecessary to enlarge on the nature of these words, or to point out the phrases into which they

are resolvable, and of which they often are abbreviations.

The adverbs of *Affirmation* and *Negation* have been reckoned different in their nature from all the others. When the subject, the predicate, and the copula, are arranged in the order of assertion, no separate word is necessary to affirmation; but sometimes an adverb is conjoined, to call the attention of the mind with greater emphasis to the truth of the assertion. Such are the adverbs "indeed," "truly," and "certainly." If a question is asked which admits of an answer by the simple affirmation or negation, the answers in the affirmative may be given in English by such adverbs as "certainly," "even so;" or in Latin by *etiam*, *imo*, or *utique*. Sometimes a peculiar word, and one which is never used as an adverb in a sentence, is applied to this object. The English word "yes," is of this kind. "Yes," is considered by Mr. Tooke as derived from *ay-es* "have" or "enjoy," and meaning "have or entertain that belief." The English "yea," the German *ja*, and the corresponding words in the northern languages, are derived from a similar source. It is therefore to be considered not as an adverb, but as an abbreviation for a sentence. The adverb "certainly," and others equivalent to it, become by ellipsis contractions for the same sentence. If we keep out of view the etymological origin of the words used on such occasions, and consider them all as containing an equally full expression of the meaning of the speaker, we must reckon them abbreviations for sentences; but wherever they are introduced into the body of a sentence, they are adverbs possessing the same properties as other words of that class. They signify that the assertions to which they are applied are not hypothetical, but in conformity to the nature of things.

The negative adverb expresses the absence of this conformity. The same word is in some languages either used singly as an answer to a question, or annexed to a verb in the formation of a sentence. The Latin words *minimé nequaquam*, and *non*, are used in both of these ways. But in English the word is on these occasions subjected to a slight change. The adverb is "not." The negative answer is "no." This last is said to be of prior date, and derived from a verb signifying "I deny," or "I am averse;" but, whatever its etymological origin may be, it is, like the word "yes," a contraction for a sentence, with this difference, that the sentence for which it stands implies the force of the adverb "not," and thus reverses the meaning. "Not" has the same general character with the other adverbs: it modifies the verb, and thus forms part of the predicate.

A negative sentence is the reverse of the corresponding affirmation. Yet there is no general difference of character betwixt affirmations and negations. Affirmations are often as directly opposite to each other as to negations. "He is without," and "he

is within," are directly contrary. Many assertions can be made equally well in the negative and in the affirmative form. "He is at home" is an affirmative sentence, and the same idea is expressed by these negations, "He is not from home," and "He is no where but at home."

CHAP. VIII.

Of Prepositions.

Differences of opinion have been entertained on the nature of *Prepositions*. It is easy to give a character which will apply to them all; but it has been found difficult to give one which will apply to them exclusively. Mr. Took has been considered by some as solving every difficulty; by pronouncing them abbreviations of nouns or verbs. This author shows that many of them are of the same nature with some of those words which are called conjunctions, and considers that circumstance as proving the inaccuracy of this instance of grammatical distinction. In so far as *the idea expressed* has been represented as a ground of distinction, this author is correct. But when we abandon that system, and take the circumstances of syntax as the foundation of our classifications of words, we shall find that some distinctions which were formerly improperly accounted for are referable to satisfactory data.

The classification of the short words called particles appears to us defective, and we shall in the present instance introduce a slight variation from the common usages of grammarians. We shall apply the term preposition to a more extensive genus than our predecessors have done, by including under it some words hitherto called conjunctions. Those words which are usually called prepositions, we distinguish by the appellation of *Nominal Prepositions*, because they are introductory to nouns; and the others by that of *Sentential prepositions*, because they are introductory to sentences.

SECT. I. Nominal Prepositions.

Nominal prepositions have been described by many grammarians as "words which signify the mutual relation of objects." But these relations are equally expressed by every part of speech. Mr. Ruddiman with greater propriety describes the preposition as "An indeclinable part of speech signifying the relation of one substantive to another." We prefer saying that it signifies "a relation subsisting betwixt the idea expressed by one substantive noun and that expressed by another." It is to be observed that, with the exception of the preposition "of" in English, and some rare expressions already alluded to under the head of the genitive case, a verb, adjective, or participle, is interposed between the first of the nouns and the preposition. The preposition "of" is as frequently employed immediately after a noun in English as the genitive case is in Lat-

in; but such phrases as "Newcastle on-Tyne," and "Ashton-under-line," are in very small number. The prepositions "on," "under," and all the others except "of," subjoin a noun to an adjective, a participle or a verb; as "fit *for* use," "good *at* singing," "depending *on* his fidelity," "connected *with* the government." "He has gone *from* home, *along* the road, *to* a distant place."

Mr. Tooke has shown great learning and ingenuity in proving that the prepositions, both in ancient and modern languages, are derived from nouns or verbs. *Chez* he derives from *casa*, "a house." *Avec* from *avez que*, "you have that:" *Sans* in French, and *senza* in Italian, from *assenza* "absence:" The Latin *sine* from *sit ne*, i. e. *ne sit*, "let it not be:" The Italian *fuori*, the Spanish *affuera*, the French *hors*, (formerly *fors*), from the Latin *foris*; and this from the Greek word *θυρα*, in the Doric dialect *φωρα* "a door or gate." "Through" is derived from a Teutonic word *thuruh*, signifying "a door or passage." *Ad* he derives from the past participle of the verb *agere*, by these steps of transmutation, *agitum*, *agtum*, *agd*, *ad*. He considers the English "to" as the same word with the verb "do;" and "till" as derived from "to while." "For" comes from a Gothic word signifying "a cause;" "of" from *afora* "progeny;" "by" from *be-on*, "to be;" "with" from *withan*, "to join;" "betwixt" from the imperative "be," and *twos*, the Gothic word for "two." "Before," "behind," "besides," are from the same imperative, conjoined with nouns which are either still separately used, or have left familiar traces in different forms. "Beneath" is from an old word *neath*, signifying "bottom;" "under" from *on* and *neder*; "beyond" from *geond*, which has the same meaning with "gone" or "past." The termination "ward," which is used both in forming adverbs and prepositions, is from the Saxon verb *weardian*, "to look at," which also gives origin to the word "regard." "Athwart" comes from *thweorrian*, "to wrest or twist;" "among" is from *gemen-gan*, "to mix;" "along" means "on long," i. e. "length;" "round" and "around" come from a word signifying "a circle;" "near" from, *neahg*, "neighbouring;" "instead" is "in station," or "in place;" "down" is from *dufen*, "to dive or dip;" "up," "upon," "over," "above," he derives from *ufa*, "high." The same sort of investigation has been with considerable success applied to the Greek prepositions by Mr. Bonar, in the 5th volume of the Transactions of the Royal Society of Edinburgh, and by Professor Dunbar in a separate work on the subject.

The grammatical system founded on these etymologies is in a great measure the contrivance of Mr. Tooke. Some of his etymologies have been called in question by Mr. Bonar and others. The author of the article Grammar in Dr. Rees's *Cyclopædia* attempts to controvert the greater part of them in sup-

port of a different system, in which he traces the modern languages of Europe to an Oriental origin. Some of Mr. Tooke's etymologies however are unquestionable; and it is of great importance to observe, that the author has shown that all prepositions are resolvable, *with regard to their meaning*, into nouns or verbs. The same ideas may be expressed by all these parts of speech. This property is independent of any opinion that may be formed regarding their particular etymology, "From," for example, may have its place supplied by the noun "beginning." "The figs came from Turkey," means "The figs came *beginning* Turkey." "The lamp fell from the ceiling," "The lamp fell *beginning* the ceiling." "The lamp hangs from the ceiling," "The lamp hangs *beginning* the ceiling."

Mr. Tooke's opinion was, that prepositions represent objects in the same manner as nouns. This is denied by other authors, who proceed on the presumption that nouns are the names of *things*, but prepositions the names of the *relations* of things. And some have derided the absurdity of pronouncing things and their relations to be the same. It might however be maintained that, as variety is essential to the existence of human knowledge, its objects wholly consist in relations. If there should be any difficulty in conceding that point, it ought to be remembered, even in a grammatical view, that the relations of things may be expressed by nouns as well as by prepositions, and that therefore no distinction betwixt these two parts of speech can be founded on such data. Mr. Tooke, however, is not content with observing this coincidence betwixt nouns and prepositions. He considers prepositions as invariably derived from *concrete* nouns or verbs containing these, and insists that they are the names of substantial material objects. The preposition "through," for example, being according to him derived from a word signifying "a door," carries along with it the full meaning of that concrete noun. This statement has been supposed to favour the system of materialism, and perhaps it was so intended; but it is in itself too inaccurate, or at least imperfect, to lead to any general conclusion. If the whole meaning of the concrete noun is retained in the prepositions thus derived, it is only in the form of allusion. A language is not pure and perfect till the allusion itself disappears, and till the word is employed to express an appropriate and well-defined degree of generality, independently of the concomitant ideas contained in the subject from the name of which it has been borrowed. "Through" expresses only one property of a door, and a property in which it resembles many other objects which have different names. This preposition is indeed equivalent to a noun, but it is to a more general one than that which suggested the term. The noun to which it is nearly equivalent is "passage," or "medium."

It is from its properties in syntax that the preposition must take its rank among the parts of speech. In this respect it deviates from the noun. When, instead of the preposition, we employ simply a substantive noun, as in the examples formerly mentioned, in which the noun "beginning" was substituted for the preposition "from," the sentence labours under an awkward chasm. The meaning may be fully understood, but it appears to be imperfectly expressed. There seems to be as great a deficiency as if in an affirmative sentence we should omit the copula, saying, like a lisping child, or an unpractised foreigner, "That man good," instead of "that man is good." In order to complete the syntax, we must either use an additional word along with the noun thus substituted, or supply its place by a different part of speech. The force of those Latin prepositions which govern the accusative is, on the whole more completely expressed by a word which has the regimen of an active verb. This character will apply to all the prepositions of the English language, as they all govern the noun in the same form. Those Latin prepositions which govern the ablative must be considered as less transitive in their regimen. (See our observations on the Ablative Case, at p. 167.)

The parts of speech to which the preposition is most nearly allied in the mode in which it is introduced, will differ according to the sort of words to which it is immediately subjoined. When it is subjoined to a verb, the verb will govern it nearly in the same manner as it governs the gerund of another verb in the ablative. *Trans* will be represented by *transeundo*; *per* by *perforando*, or *permeando*. The English preposition "from" might be represented by the Latin gerund *linquendo*; the Latin *a*, *ab*, or *abs*, by *abeundo*. The prepositions imply no such specification as is signified by any of the verbs with which, for the sake of pointing out the properties of their syntax, we have here combined them. It was necessary to make gerunds by combining them with verbs, and thus appearing to add to the ideas which they express rather than to explain them, because we have no verb exactly corresponding to the simple preposition. The preposition itself is the gerund, though indeclinable.

If the preposition is introduced by the substantive-verb alone as the first word of the predicate, it will possess the syntax of a participle agreeing with the nominative which precedes. *Sub* will have the regimen of *subjacens* or *subjunctus*. *In* will approach to the participle *habitans* or *inclusus*, though more general in the idea which it conveys. "Out of," when used in such a sentence as "He is out of town," will also have the power of a participle, though we cannot name any word in that form to which, with respect to generality, it makes any approach. This cannot always be expected. If the office of a preposition were to be performed with equal advantage by the gerund or participle of a

verb in present use, there would be in some respects no occasion for the prepositions themselves.

Here we trace the peculiarities of this part of speech. It is usually more general than any other to which it is allied. It is marked by a peculiar brevity, and by the absence of inflection. Without the formality of significant terminations, prepositions possess all their force. They thus correspond to the rapidity of human thought, and to the subordinate rank of the ideas which they convey. They have been called the pegs and nails of language. This account of them is severely censured by Mr. Tooke, and is accurate when intended to intimate that they differ from other words in not expressing idea. Yet it is certainly true that the ideas which they express might often be left to be inferred from the other words of the sentence. They are not the central ideas in discourse. The preposition *secundum* "according to," implies all the ideas expressed by the noun "harmony" or "agreement;" the word "from" those expressed by the noun "beginning;" "above;" those of the noun "top;" "below" those of the noun "bottom." But such ideas are never interesting on account of any general properties of their own. We never have occasion to write dissertations on "tops," "medium," "beginnings," "endings," "outsides," or "insides." Yet the frequent recurrence and consequent familiarity of these ideas, together with their subordinate character, render it desirable for us to express them with rapidity, by endowing them with all possible brevity of form. Words possessing this character render language copious and minute without incumbrance. They are the *ἑρμα πτερόεντα*, the winged words, of discourse. Whether we consider them as always derived from other parts of speech of greater length, which a large proportion of them undoubtedly is, or suppose it possible that they have occasionally consisted of syllables thrown in at random, and afterwards adhered to as significant, in the same manner as almost all original words must have been produced, we see, in their general form and application, their excellent adaptation to the completion of language.

SECT. II. Sentential Prepositions.

The *Sentential Preposition* is a sort of words generally numbered among conjunctions, and forming in elementary grammars more than one half of that list. But the conjunctions, as thus classified, are not susceptible of any common definition; and this proceeds not merely from their coincidence in use with words of a different kind, but from their dissimilarity to one another. That this disadvantage may be diminished, if not entirely remedied, we here give a separate consideration to those words which have the power of introducing subjoined sentences in the same manner as the words called prepositions have with respect to nouns. We denominate them *sentential prepositions*, in contradistinction to the others, to

which we have given the designation of *nominal*. In some instances the same word serves for a preposition of both kinds. "After" is a nominal preposition in the phrase "after dinner," and a sentential preposition in the phrase "after we have dined." In other instances the word employed as a nominal preposition undergoes some slight alteration, or receives some addition, to distinguish its application as a sentential preposition. The Latin *cum*, ("with,") sometimes retains the same form when used for subjoining a sentence, and sometimes is transformed into *quum*. *Ante* and *post* are converted into *antequam* and *postquam*.

The nature of the general sentential preposition "that" in English, and *quod* and *ut* in Latin, has been already discussed. *Quam* is another, like these, of a very general meaning. It is sometimes translated "as," sometimes "than." It then performs the part of a relative, and has the same relation to an antecedent adverb which the relative noun has to the noun antecedent. *Quam* has the same relation to *tam* as *qui* has to *ille*. *Tanquam*, from *tam* and *quem*, may be called a sentential preposition, but it differs from *quam* in being more particular, as including the antecedent adverb. Of this last kind are also the sentential prepositions *antequam* and *postquam*. *Ante* and *post* are used adverbially, and the Roman authors often disjoin them from the subsequent *quam*; as, *ANTE autem huc venerat QUAM sperassem*. It might appear that *quam* should be considered as giving the subjoined sentence the character of a noun, and the word *ante* or *post* as a preposition governing or introducing it in that state. It is however more agreeable to the analogy of language to consider *ante* and *post* as adverbs, and the compound words *antequam* and *postquam* as synonymous with *antequam* and *postquam* formed from the adverbs *antea* and *postea*. Adverbs in general might be resolved into nouns in the ablative case; and a special sentential preposition, or one which implies the meaning of an antecedent adverb, would, on this principle, be resolved into the ablative of an antecedent noun and that of the relative. *Antequam* is equivalent to *tempore ANTERIORE illi tempori quo*. *Ut* is also used as a relative; *sic* is often its antecedent when it introduces the indicative mood, and *ita* when it introduces the subjunctive. *Ut* has sometimes in itself the force of *sicut* or of *ita ut*, and, when no antecedent adverb is expressed, may always be considered as implying by ellipsis the meaning of one. The sentential prepositions *dum* and *quum* have the same relation to *tum*; "when," "while," and "where," to the adverbs "then" and "there." The resemblance and near relation subsisting betwixt "when," and the adverb "then," have led many grammarians to give to both the common designation of adverbs. *Postquam*, *antequam*, and other analogous words, have also been denominated adverbs; and thus the whole of this part of

grammar has been involved in confusion: but we shall see the difference clearly if we recollect that the words now mentioned are not attached to verbs to modify their meaning, or exhibit in themselves any concomitant circumstances, but to introduce a subjoined sentence. The word "as" is used both for an antecedent adverb, and a sentential preposition. It is an adverb in the phrases "as good," "as soon," and a sentential preposition after the adverb "so," "He did not come so soon as I expected." All special sentential prepositions might be resolved by analysis similar to that which we have given of *ut* and *antequam*. We have not antecedents in the form of adverbs for them all, but we may express them by ablatives of nouns or of gerunds. *Si*, "if," implies the meaning of *ea conditione*, *eo casu* or *supponendo*. *Quancumque*, *etiamsi* *etsi*, "though," "although," (words of nearly the same meaning with *si*, and differing slightly in the occasions of their application,) imply the force of *concesso* or *concedendo*.

It is in fine to be observed, that the special sentential preposition and the sentence subjoined by it, taken as a whole, occupy the place of an adverb, or of noun in the ablative case. In some instances we find single words in this form equivalent to such sentences. *Cito* is equivalent to *priusquam multum temporis preterierit*. In the following sentence "He was appointed to the office *till the propriety of the continuance of that measure should be ascertained*;" the whole subjoined ideas marked in italics may be fully expressed by the single adverb "provisionally." When *ita* is used without any subjoined regimen, it is an adverb implying a reference to some assertion previously made, or some connection of ideas exhibited at the instant of speaking: When it is employed as the antecedent to *ut*, with a subjoined sentence, the whole sentence along with the *ita* and *ut* occupy the place of an adverb, or the ablative of a noun.

The following is Mr. Took's account of the etymology of some English words belonging to this part of speech. "If" is from *Gif*, the imperative of *Gifan* "to give." The old synonyme "an," from *Anan* "to grant." "Unless," from *Onlesan* "to dismiss." "Though," from *Thafigan*, or *thafan*, "to allow." "Without," from *Wyrthanutan* to "be out." "Lest," from *Lesan*, "to dismiss." "Since," from the participle of *Seon*, "to see." "As" is *es*, a German word for "it," "that," or "which."

Some words are used as sentential prepositions which still retain the form of gerunds or participles; as "supposing," "provided," "providing that," "granting that." "Seeing," was formerly used in the same manner.

CHAP. IX.

Of Conjunctions and Miscellaneous Particles.

Conjunctions connect words or sentences on equal terms, without regimen or subjunction. They con-

give the syntax of the introducing word to that which they introduce. General words of this description are not numerous, and the purposes to which they are applied do not admit of great variety. One kind of them may be termed *Conjunctions of union*, as they unite the meanings of the words which they connect. Such are the English word "and," and the Latin *et, ac, atque*. Another kind may be termed *Conjunctions of alternation*, as *aut* and *vel* in Latin, and "or" in English. The negative "nor" is a conjunction combined with a negation. It might appear in its etymology the reverse of "or," but in meaning it is the reverse of "and." It is equivalent to "and not." In Latin this is also its etymology. It is not *non vel* or *ne vel*, but *nec* from *ne ac*, and *neque* from *ne* and *que*.

Sometimes the first of the nouns or verbs connected by conjunctions is preceded by a peculiar word. "Both" is used to precede words connected by "and;" "either" those connected by "or," and "neither" those connected by "nor." It is natural to ask to what head "both," "either;" and "neither" are to be referred. In the English language, their etymology might strongly lead a grammarian to refer them to the class of adjectives when they precede nouns, and thus make them equivalent to *ambo, uter, and neuter*. When they precede verbs, they might be reckoned adverbs, and in English would be equivalent to adverbs formed by adding the termination "ly" to the adjective, as if we said "bothly," "eitherly," "neitherly." They perform the office of an adverb referring to concomitance. In Latin the same word is used both as the preceding and the conjoining word. *Et ille et alter; Et venit et vidit*. It will be found, on the whole, that conjunctions are near akin to adjectives and adverbs. They are necessarily frequent in the use of language, and therefore have received an abbreviated form.

Some miscellaneous particles may be called *special conjunctions*, as including a more particular character of mutual relation betwixt the ideas contained in the words or sentences which they connect. Such are the words "also," "farther," "moreover," "but," "likewise," "yet," "notwithstanding," "however."

CHAP. X.

Of Interjections.

The term *Interjection* is applied to those words which express by short exclamation certain overpowering emotions of mind. Such as 'A! *ai! Heu! Atat! Proh!* "Ah!" "Oh!" "Alas!"

This part of speech is treated by Mr. Tooke with great contempt, as a brutish inarticulate sound which has as little to do with speech as the neighing of a horse, the barking of a dog, coughing, groaning, shrieking, or any other involuntary convulsion with

oral sound. These words, however, though at first involuntary, are afterwards uttered from design. A man desirous of impressing another with a particular passion, first contrives to excite it in his own mind, and then utters the sound by which it is expressed. Hence corresponding syllables are committed to writing in works which depict human passions and manners. They belong to language, as language must include every sound addressed by one man to another, from the highest to the lowest state of mental cultivation. Interjections may be considered as a mixture of involuntary expression with social discourse. In the use of this part of speech, man is seen to rise from the character of an animal impelled by passion to that of a reflecting being, who displays intelligence and address in influencing his fellow creatures.

Sometimes words belonging to other parts of speech, and expressing definite ideas, are introduced abruptly to express emotion, and numbered among interjections; as "Amazing!" "Wonderful!" "Prodigious!" "Shocking!" "Horrible!" "Mercy!" "Pitiful!" "Woe's me!" Whether we call such exclamations as these interjections, or abbreviations by ellipsis, is of little importance. Their meaning is never ambiguous.

In the introductory part of this article we described language as essentially imperative; and the slightest reflection will show, that interjections, in so far as they partake of the nature of social discourse, possess an imperative character.

COLLEGES AND SCHOOLS.

WE hail with more than common feelings the rising grandeur of America; the point to which she is fast arriving, which, while it puts at defiance European calculation, excites envy, which would bury in oblivion, this country, which from all appearances, is yet destined to act as glorious a part in the affairs of the world as the ancient republics of Greece and Rome, where Homer sung, and Demosthenes and Pericles flashed their brilliant eloquence; where Cicero thundered; and Virgil, copying his great master, immortalized him and his country by a fame, more permanent, but not so dazzling to the general eye, as that acquired by Caesar, or any hero, who has made his pillow of glory, of the mangled corpses, tears and sufferings of a magnanimous people.—America, a name dear to every patriot and follower of our illustrious Washington, while she is displaying to a wondering world her great and unrivalled resources, forgets not that, which forms, in a great measure, the glory and strength of a nation,—the palladium of her union,—the mental cultivation of her people. From the East to the West, from the North to the South, education is making rapid strides; a noble spirit of enterprize in its cause seems awakened; and while New-York, Virginia and

other old states, are fostering common schools, rearing colleges, and establishing, as fast as possible, their systems of education on the best foundation, the Southern and Western parts of the United States, display a zeal equally praise-worthy, and productive of great and beneficial effects.

To this general observation, we have been led, from the letters we have received from our numerous and able correspondents; to give all of whose communications entire, would require more room, than can possibly be devoted to them in a work like the Academician. While, we return our best thanks to the REV. JOHN M'FARLAND of Chillicothe, the REV. CALEB ATWATER, of Circleville, Ohio, the REV. DR. WILLIAM M'MILLAN, of Jefferson College, Pennsylvania, JOHN M'MILLAN, D. D. SAMUEL MILLER, A. M. ABRAHAM ANDERSON, A. B. and DR. AIGSTED, of that Institution; the REV. TIMOTHY ALDEN, of Alleghany College, Meadville, Pennsylvania, REV. DR. JOSHUA BATES, President of Middlebury College, Vermont, SIMEON N. KALFUS, Esq. of Jeffersontown, Kentucky, Mr. J. F. WILSON, of Tracy's Landing, Maryland, MESSEURS. KERNDON, FRAZER, and CHARLES TACKETT, of Virginia, E. HOWARD of Auburn, E. GIDDINS, of Youngstown, New-York, and many others, we must apologize to them for not inserting their communications at full.

The following is an extract of a letter from the REV. CALEB ATWATER, who is about to publish a volume "of Notes on the antiquities, physical resources, &c. of Ohio,"—a work we presume to say, from the well known talents and extensive information of the author, will receive a wide circulation, and redound much to his literary reputation.

"The Medical College at Cincinnati, is just incorporated, and from the well known abilities of its professors, among whom is the amiable and learned DR. DRAKE, little doubt remains as to its future usefulness and celebrity. The same observations apply to the Cincinnati College in that flourishing town. At present there is a female school at Columbus, the seat of government, taught by MRS. SMITH, equal perhaps, to any other in the union. There is a most excellent Classical and English seminary at Chillicothe, under the superintendence of the REV. JOHN M'FARLAND, and would be so esteemed even in New-York. The same may be asserted of the academies at Zanesville, New-Lancaster, St. Clairsville, Steubenville, Marietta, Dayton, Gallipolis and some other places."

The Editors regret, that want of room prevents them from inserting a long and able communication, written by the learned MR. M'FARLAND, in compliance with their request, relative to the state of literature, &c. of Ohio. MR. ATWATER's and his opinions are corroborative of each other. We shall endeavour, however, to give them.—The statements we have perused, concerning Alleghany, Jefferson and Middlebury colleges, &c. represent them as very

flourishing. Their course of study appears well chosen.

Since writing the above we have received a very interesting letter from CHARLES H. PICKET, M. D. of Worthington, Ohio, giving a particular account of the Literature, antiquities, &c; the contents of which are in accordance with those already mentioned. We may observe, that a law was passed at the last session of the Legislature of Ohio, incorporating a College at Worthington; a beautiful, healthy and flourishing village, on the Whetsone river, nine miles from Columbus. Of that Institution, the REV. BISHOP PHILANDER CHASE, is chosen President.

From the Port Folio.

MR. OLDSCHOOL,

In turning over the pages of Mr. Gifford's Journal, I found among the notes appended to that chaste production, the following happy translation of a passage of the Bacchides of Plautus; by that elegant scholar and just critic, which struck me, as being appositely appropriate and justly descriptive of that decadence of respect for the instructors of our youth, that so eminently characterizes the present generation: If Mr. Oldschool should be of a similar opinion, I should be much pleased by seeing it inserted in the Port Folio.

Yours, &c.

T.

Time was, a tutor was obey'd, and fear'd,
Till youth grew fit for office: now, alas!
Let him but chide a child of seven years old,
And the brat flings the tablets at his head—
You hasten to his father, and complain:
And what redress? aha! old Bumbrusher,
You see my boy here can defend himself,
So touch him at your peril. Thus aveng'd,
You hang your ears in silence, and sneak home,
With your cracked pate beplastered, and bepatch'd,
Like an old paper lantern!—

A passion, says Goldsmith, which the present age is apt to run into is, to make CHILDREN learn all things; the languages, the sciences; music, the exercises, and painting. Thus the child soon becomes a talker in all, but a master in none. He thus acquires a superficial fondness for every thing, and only shows his ignorance, when he attempts to exhibit his skill.

Those authors, observes Johnson, are to be read at school, that supply most axioms of prudence, most principles of moral truth, and most materials for conversation; and these purposes are best served by poets, orators and historians.